AMENDMENTS

IN THE CLAIMS:

Please cancel claims 78, 81-83, and 90-91 without prejudice. In addition, please amend claims 63-64 as indicated below. Finally, please add new claims 92-103. A complete claim listing is provided pursuant to 37 C.F.R. § 1.121(c) follows:

1. to 17. (CANCELED)

18. (PREVIOUSLY PRESENTED) A method of enhancing cognitive function in a warm-blooded vertebrate in need of said treatment, said method comprising the step of administering to said warm-blooded vertebrate an effective amount of a compound capable of inhibiting the peptidase activity of one or more neurogenic peptidases in the brain of said patient.

19. (PREVIOUSLY PRESENTED) The method of claim 18 wherein the warm-blooded vertebrate is a human patient suffering from dementia or amnesia.

20. (PREVIOUSLY PRESENTED) The method of claim 18 wherein the warm-blooded vertebrate is a human patient suffering from Alzheimer's Disease.

21. (PREVIOUSLY PRESENTED) The method of claim 18 wherein the compound is a β-lactam compound.

22. (ORIGINAL) The method of claim 21 wherein the β-lactam compound is a β-lactamase inhibitor.

23. (PREVIOUSLY PRESENTED) The method of claim 21 wherein the β-lactam compound is selected from the group consisting of penicillins, cephalosporins, penems, 1-oxa-1-dethia cephems, clavams, clavems, azetidinones, carbapenams, carbapenems, carbacephems, and analogs thereof.

24. (PREVIOUSLY PRESENTED) The method of claim 23 wherein the β-lactam compound is a 1-oxa-1-dethia-analogue of a cephalosporin.

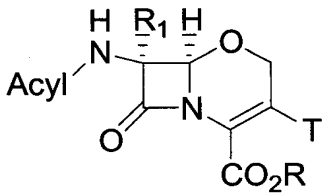
25. (PREVIOUSLY PRESENTED) The method of claim 18 further comprising the step of administering an effective amount of a P-glycoprotein efflux pump inhibitor.

26. (PREVIOUSLY PRESENTED) The method of claim 23 wherein the β-lactam compound is administered in combination with an effective amount of a P-glycoprotein efflux pump inhibitor.

27. (PREVIOUSLY PRESENTED) The method of claim 18 wherein the compound is a β-lactam antibiotic and the amount administered to the warm-blooded

vertebrate is at least 50 μg/kg but less than an amount effective to provide clinically effective antibacterial blood levels of the compound.

28. (PREVIOUSLY PRESENTED) The method of claim 18 wherein the compound is a compound of the formula:



wherein R is hydrogen, a salt forming group or an active ester forming group; R^1 is hydrogen or C_1-C_4 alkoxy; T is C_1-C_4 alkyl, halo, hydroxy, O(C_1-C_4)alkyl, or -CH_2B, wherein B is the residue of a nucleophile B:H, and Acyl is the residue of an organic acid Acyl-OH.

29. (ORIGINAL) The method of claim 28 wherein the compound is moxalactam or flomoxef.

30. (PREVIOUSLY PRESENTED) The method of claim 29 further comprising the step of administering an effective amount of a P-glycoprotein efflux pump inhibitor.

31. (PREVIOUSLY PRESENTED) The method of claim 18 wherein the compound is a 2-optionally substituted oxa-2-deamino analogue of glutamic acid, a 2-optionally substituted carba-2-deamino analogue of glutamic acid, or an N-substituted derivative of glutamic acid.

32. (PREVIOUSLY PRESENTED) The method of claim 31 further comprising the step of administering an effective amount of a P-glycoprotein efflux pump inhibitor.

33. to 61 (CANCELED)

62. (ORIGINAL) A method of treating cognitive disorders in a warm-blooded vertebrate in need of said treatment, said method comprising the step of inhibiting neurogenic peptidase activity in the brain of said vertebrate, said neurogenic peptidase characterized by its inhibition with effective amounts of the peptide Ala-D-γ-Glu-Lys-D-Ala-D-Ala.

63. (CURRENTLY AMENDED) The method of claim 62 wherein the step of inhibiting the neurogenic peptidase ~~is carried out by~~includes administering an effective amount of a β-lactam antibiotic effective to enhance the warm-blooded vertebrate's cognitive performance.

64. (CURRENTLY AMENDED) The method of ~~claim 62~~ claim 63 wherein the β-lactam antibiotic is administered in an amount less than that necessary to obtain antibiotically effective blood levels of said antibiotic.

65. to 91. (CANCELED)

92. (NEW) The method of claim 62 wherein the inhibitor is a 2 optionally substituted oxa-2-deamino analogue of glutamic acid, a 2-optionally substituted carba-2-deamino analogue of glutamic acid, or an N-substituted derivative of glutamic acid.

93. (NEW) The method of claim 92 further comprising the step of administering an effective amount of a P-glycoprotein efflux pump inhibitor.

94. (NEW) The method of claim 62 wherein the warm-blooded vertebrate is a human patient suffering from dementia or amnesia.

95. (NEW) The method of claim 62 wherein the warm-blooded vertebrate is a human patient suffering from Alzheimer's Disease.

96. (NEW) The method of claim 62 wherein the step of inhibiting the neurogenic peptidase includes administering an effective amount of a β-lactam compound.

97. (NEW) The method of claim 96 wherein the β-lactam compound is a β-lactamase inhibitor.

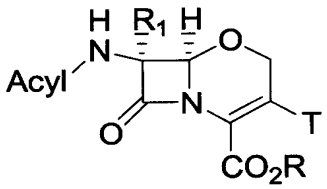
98. (NEW) The method of claim 96 wherein the β-lactam compound is selected from the group consisting of penicillins, cephalosporins, penems, 1-oxa-1-dethia cephems, clavams, clavems, azetidinones, carbapenams, carbapenems, carbacephems, and analogs thereof.

99. (NEW) The method of claim 98 wherein the β-lactam compound is a 1-oxa-1-dethia-analogue of a cephalosporin.

100. (NEW) The method of claim 98 wherein the β-lactam compound is administered in combination with an effective amount of a P-glycoprotein efflux pump inhibitor.

101. (NEW) The method of claim 63 wherein the β-lactam antibiotic is administered to the warm-blooded vertebrate in an amount of at least 50 μg/kg but less than an amount effective to provide clinically effective antibacterial blood levels of the compound.

102. (NEW) The method of claim 96 wherein the compound is of the formula:



wherein R is hydrogen, a salt forming group or an active ester forming group; R^1 is hydrogen or C_1-C_4 alkoxy; T is C_1-C_4 alkyl, halo, hydroxy, O(C_1-C_4)alkyl, or -CH_2B, wherein B is the residue of a nucleophile B-H.

103. (NEW) The method of claim 102 wherein the compound is moxalactam or flomoxef.